

### **What is claimed is:**

**[Claim 1]** Method for transdermal administration of at least one active substance to a porous surface, comprising the following steps:

- a) Dispensing a certain amount of a liquid comprising at least one active substance and at least one solvent into an administration reservoir;
- B) Separation of the at least one solvent from the administration reservoir by a solvent recovery means such that the at least one active substance achieves a certain level of concentration in vicinity to a porous surface to be treated;
- c) Absorption of active substance by the porous surface to be treated via diffusion such that the level of concentration in the administration reservoir decreases.

**[Claim 2]** Method according to claim 1 wherein the solvent is separated by evaporation.

**[Claim 3]** Method according to claim 2 wherein the evaporation of the solvent is supported by a heating element.

**[Claim 4]** Method according to claim 3 wherein the solvent is evaporated through a membrane passable preferably for the solvent.

**[Claim 5]** Method according to claim 2 where the solvent is removed by a pre-programmed opening a pinch valve that is in contact with porous surface.

**[Claim 6]** Method according to claim 5 where the solvent is removed by programming the pumping of the solvent.

**[Claim 7]** Method according to claim 2 where the solvent is removed by a programmed lowering of an arm or lever.

**[Claim 8]** Method according to claims 2 wherein the solvent is absorbed by a desiccant.

**[Claim 9]** Method according to claim 5 wherein the desiccant is one or a combination out of the group of silica gel, molecular sieves, active carbon.

- [Claim 10] Method according to one of the claims 2 wherein the solvent is discharged into the environment.
- [Claim 11] Method according to one of the claims 2 wherein the solvent is flushed by a fluid.
- [Claim 12] Method according to claim 1 wherein the at least one active substance passes an interface device which is permeable for the at least one active substance.
- [Claim 13] Method according to claim 12 wherein the interface device comprises a membrane.
- [Claim 14] Method according to claim 12 wherein the interface device comprises an adhesive layer suitable to be attached to the porous surface.
- [Claim 15] Method according to claim 1 wherein the steps a to c are repeated at predefined intervals such that the level of concentration of the at least one active substance in the administration reservoir is kept above a certain level.
- [Claim 16] Method according to claim 15 wherein the dispensing rate and the time pattern of dispensing the liquid into the administration reservoir are controlled by a programmable device.
- [Claim 17] Device for transdermal administration of at least one active substance to a porous surface, comprising a dispensing device interconnected to an administration device for delivery of at least one active substance solved in a solvent to said administration device, wherein the administration device comprises an administration reservoir suitable to receive the active substance solved in the solvent, a solvent removal means for absorption of solvent from the administration reservoir by evaporation and an interface means for transfer of the active substance from the administration reservoir to the porous surface.
- [Claim 18] Device according to claim 17 wherein the interface device is suitable to be arranged in vicinity to the porous surface.

- [Claim 19] Device according to claim 18 wherein the interface means comprises an adhesive surface suitable to be attached to the porous surface.
- [Claim 20] Device according to claim 17 wherein the interface means is a membrane permeable for the active substance.
- [Claim 21] Device according to claim 17 wherein the solvent removal means is separated from the administration reservoir by a separation means.
- [Claim 22] Device according to claim 21 wherein the separation means is a membrane or a foam or a cellular material or a honeycomb or an air gap.
- [Claim 23] Device according to claim 21 wherein the administration reservoir and the solvent removal means are spaced apart a distance by the separation means 14.
- [Claim 24] Device according to claim 17 wherein the solvent removal means comprises one out or a combination out of the group of the following materials: Desiccant, general or a selective adsorbent material, silica gel, a molecular sieve, active carbon.
- [Claim 25] Device according to claim 17 wherein the solvent removal means comprises a chamber with an inlet and an outlet for flushing by a fluid.
- [Claim 26] Device according to claim 17 wherein the dispensing device comprises at least one reservoir for an active substance which is interconnected to the administration device.
- [Claim 27] Device according to claim 17 wherein the dispensing device comprises a propellant means to propel the active substance from the reservoir into the administration reservoir.
- [Claim 28] Device according to 27 wherein the propellant means is a pump and/or a propellant gas.

- [Claim 29] Device according to claim 26 wherein the dispensing means comprises a first reservoir comprising a first active substance and a second reservoir comprising a second active substance and the first and the second active substance are mixed by mixing means before delivery to the administration device.
- [Claim 30] Device according to claim 28 wherein the mixing means is a pipe with vortex means providing an appropriate preparation of mixture.
- [Claim 31] Device according to claim 30 wherein the control device is interconnected to at least one valve for controlling the administration of the at least one active substance.
- [Claim 32] Device according to claim 30 wherein the control device is programmable according to a predetermined regime or time pattern or interval of administration of the at least one active substance.
- [Claim 33] Device according to claim 30 wherein the control device is interconnected with at least one sensor for measuring the administration and the condition of at least one active substance.
- [Claim 34] Device according to claim 33 wherein the administration of the active substance is determined by the signal of the at least one sensor.